Western Electric Co., Incorporated, Engineering Dept., New York.

(2 Pages) Page #1. Issue 1 - BT-441174. March 11, 1921.

METHOD OF OPERATION CALL CIRCUIT

Incoming With Audible and Flash Signal - Special "A" Switchboard - Power Driven Machine Switching System.

CENERAL DESCRIPTION

- 1. This circuit is used at a special "A" board in a mechanical office as an incoming call circuit from the wire chief's desk or from other special "A" positions.
- 2. The operation of a call circuit key at the distant end causes a tone to be connected to the call circuit and an audible and flashing signal to be given at the incoming end when the "A" operator is busy or is away from the position.
- 3. The circuit may be provided with a key to transfer the incoming call circuit to an adjacent position.

DETAILED DESCRIPTION

OPERATION

- 4. When the talking key or an outgoing call circuit key is operated or the plug of the operator's telephone set is removed from the position jack at the special "A" switchboard, the CO relay operates disconnecting the leads of the telephone circuit from the incoming call circuit and connecting the call circuit to the tone circuit. If under any of these conditions a call circuit key is operated at the distant end the AR relay operates which connects ground through the night alarm circuit, the winding of the B relay the call circuit pilot lamp, the auxiliary signal circuit to battery, giving an audible signal operating the B relay and lighting the lamp. The operation of the B relay connects ground to the tone circuit causing a tone to be induced through the 27-A repeating coil back over the call circuit to the distant end.
- 5. When the call circuit key is released, the circuit through the windings of the AR relay is opened and the relay is released. The AR relay released, opens the night alarm circuit, releases the B relay and extinguishes the pilot lamp restoring the circuit to normal.

(2 Pages) Page #2. Issue 1 - BT-441174. March 11, 1921.

CIRCUIT REQUIREMENTS

	OPERATE	NON-OPERATE	RELEASE
(B)	Test .065 amp. Readj058 amp.		Test .008 amp. Readj016 amp.
B51 (AR) Windings in Series Aiding.	After a soak of approximately .0085 amp. Test .003 amp. Readj0028 amp.		After a soak of approximately .0085 amp. Test .0014 amp. Readj .0015 amp.
E65	Test .0165 amp. Readj013 amp.	Test .0085 amp. Readj009 amp.	